

**REMARKS**

Applicant wishes to thank the Examiner for considering the present application. In the Office Action dated January 28, 2004, claims 1-18 are pending in the application. Claims 4, 8 and 15 have been canceled. Claims 19-27 have been added. Support for these claims may be found in Equation 10 and the surrounding text. Applicant respectfully requests the Examiner for to reconsider the rejections in view of the amendments above and remarks below.

The Examiner objects to the insertions of the previous Office Action under 35 U.S.C. §132 for introducing new matter into the disclosure. Applicant respectfully submits that new matter has not been added to the disclosure as set forth on a case-by-base basis below. With respect to the amendment of equation 1, applicant respectfully believes that the normalized tire slip value is well known in the art. The formula set forth below obviously has an error. The errors in the document correspond to printing errors due to a type font misconfiguration in our computers. In Equation (1), applicant added an  $\omega_i$ , which is set forth directly below the equation. Although the variables are set forth below the equation, the  $\omega_i$  is missing from the equation. An unit analysis of Equation (1) renders the equation as set forth previously as nonsensical. A radius can not be subtracted from a velocity. The units must match. The units of the wheel rotation are in units or radians per second which when combined with the effect of rolling radius in meters makes meters divided by seconds. This is a velocity value that may be subtracted from V, the longitudinal vehicle speed. This equation is used later on as the third portion of Equation (3). Therefore, this equation has a basis later on in the specification. Therefore a basis for changing Equation (1) is set forth in the current specification on page 9, line 4.

With respect to the amendment of paragraph [0021], the  $q_r$  is set forth in the variables at the end of paragraph [0021]. Therefore it is obvious that  $q_r$  should have been in the formula.

In paragraph [0022] the omission of  $\dot{\omega}_i$  is also an obvious error. The subscript i was provided in the formula with the  $\dot{\omega}$  missing. By reviewing the second paragraph of Equation (3), it is obvious that the equation in paragraph [0026] has an  $\dot{\omega}_i$  missing. Likewise, Equation (2) is a rewritten form of the equation in paragraph [0026] and therefore it is proper for the  $\dot{\omega}_i$  to be placed in paragraphs [0022], [0023], and [0026]. There is a second equation in

paragraph [0026] wherein the  $\dot{V}$  was added. This is obviously a mistake and the  $r$  written form in Equation (3) clearly shows the  $M$  and the  $\dot{V}$ .

Equation (7) is also an obvious error. In Equation (7) the subscript  $i$  is obviously missing. Also, in paragraph [0032] the  $\frac{S}{\phi}$  is also missing. This is also believed to be obvious.

By looking at the right side of the equation in Figures 8 and 9, the portion  $\kappa_h - \kappa_i$  is shown divided by  $\phi$ , the boundary layer thickness. Because each of these are incorporated into the right side values of Equations (8) and (9), it is obvious that these derivations are missing a portion. No new matter has been added by correcting the  $\frac{S}{\phi}$  value and the  $\kappa_h - \kappa_i$  value. This

same logic holds true for Equation (10), which was also amended to include the subscript  $i$  in the right side of the equation. Equation (8) clearly shows the subscript  $i$ .


Claims 1-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Naito* (5,657,229) in view of *Grote* (6,293,632). Applicant has amended the independent claim to clarify that the modified brake torque signal is determined a saturation function of a threshold slip and the actual wheel slip, an approximated friction curve slope, and the normal force. Support for this amendment can be found in paragraph 28, and Equation (10). Applicant respectfully submits that neither the *Naito* reference nor the *Grote* reference does not teach or suggest determining a modified brake torque a saturation function of a threshold slip and the actual wheel slip, an approximated friction curve slope, and the normal force. Applicant respectfully requests the Examiner for reconsideration of this rejection.

In light of the above remarks, applicant submits that the application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments the Examiner is respectfully requested to call the undersigned attorney.

Please charge any fees required in the filing of this amendment to Deposit Account 50-0476.

Respectfully submitted,

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